TACAMO Safety Brief

RADM A.J. “Blackjack” Johnson

Commander

Naval Safety Center

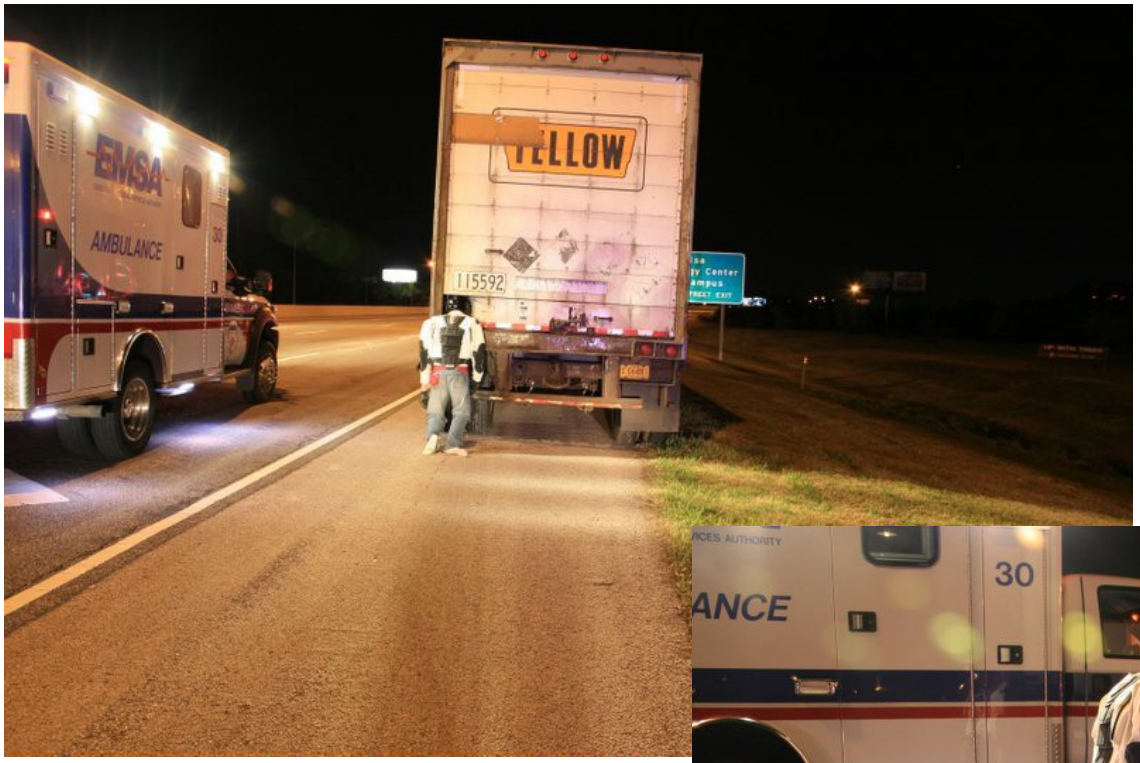
Agenda

- Goals
- Aviation Mishaps Overview
- PMV / Off-Duty Mishaps
- Fatigue
- Risk Management
- Tools for Success
- Q & A

What’s wrong with this picture?

Here's your science fact for the week:
Newton's first law
... a moving object will keep moving at the same speed
and in the same direction unless acted on by some force.

3
Temporary Insanity II



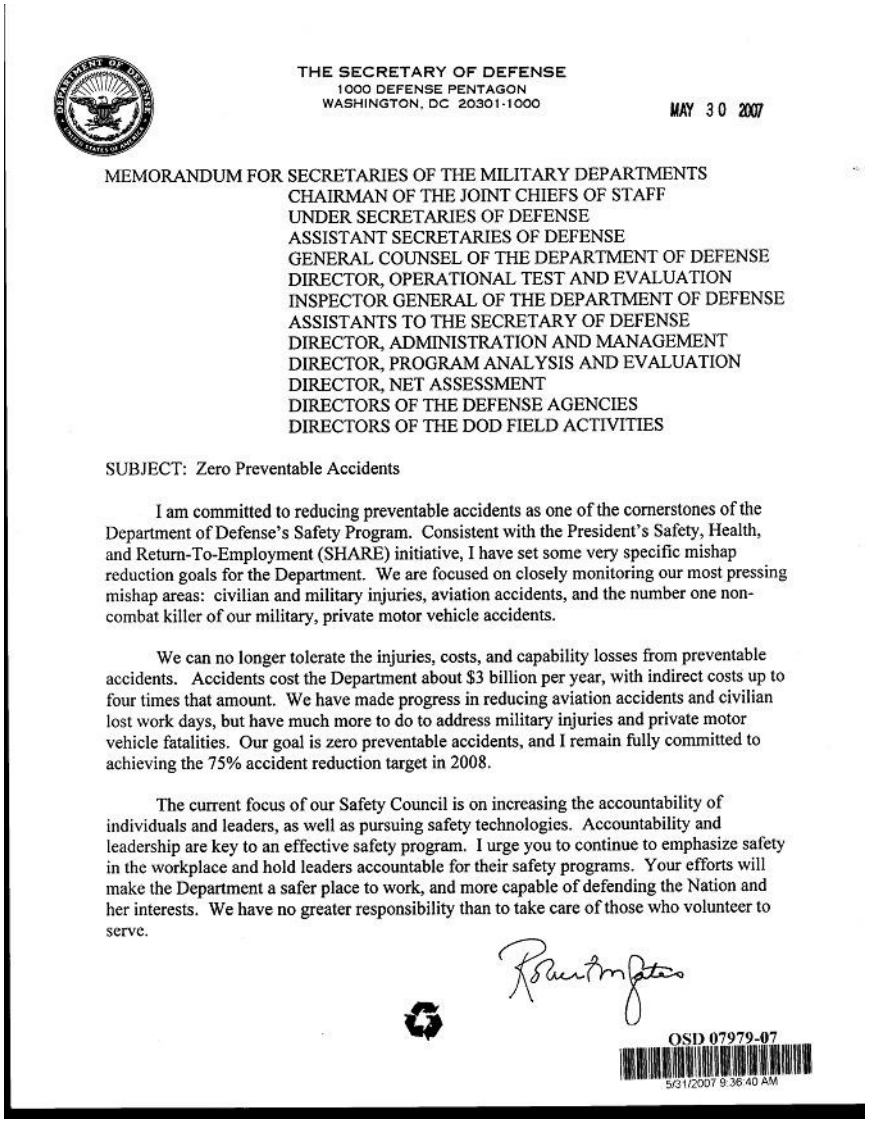
Fatal motorcycle accident

April 2007, 1:00 am

In excess of 100 mph

The Safest Forehead

SECDEF Challenge



THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

MAY 30 2007

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DIRECTOR, OPERATIONAL TEST AND EVALUATION
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION
DIRECTOR, NET ASSESSMENT
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Zero Preventable Accidents

I am committed to reducing preventable accidents as one of the cornerstones of the Department of Defense's Safety Program. Consistent with the President's Safety, Health, and Return-To-Employment (SHARE) initiative, I have set some very specific mishap reduction goals for the Department. We are focused on closely monitoring our most pressing mishap areas: civilian and military injuries, aviation accidents, and the number one non-combat killer of our military, private motor vehicle accidents.

We can no longer tolerate the injuries, costs, and capability losses from preventable accidents. Accidents cost the Department about $3 billion per year, with indirect costs up to four times that amount. We have made progress in reducing aviation accidents and civilian lost work days, but have much more to do to address military injuries and private motor vehicle fatalities. Our goal is zero preventable accidents, and I remain fully committed to achieving the 75% accident reduction target in 2008.

The current focus of our Safety Council is on increasing the accountability of individuals and leaders, as well as pursuing safety technologies. Accountability and leadership are key to an effective safety program. I urge you to continue to emphasize safety in the workplace and hold leaders accountable for their safety programs. Your efforts will make the Department a safer place to work, and more capable of defending the Nation and her interests. We have no greater responsibility than to take care of those who volunteer to serve.

OSD 07979-07
5/31/2007 9:36:40 AM

"… Our **goal is zero** preventable accidents and I remain fully committed to achieving the 75% accident reduction target in 2008.

… The current focus of our Safety Council is on increasing the **accountability** of individuals and leaders, as well as pursuing safety technologies.

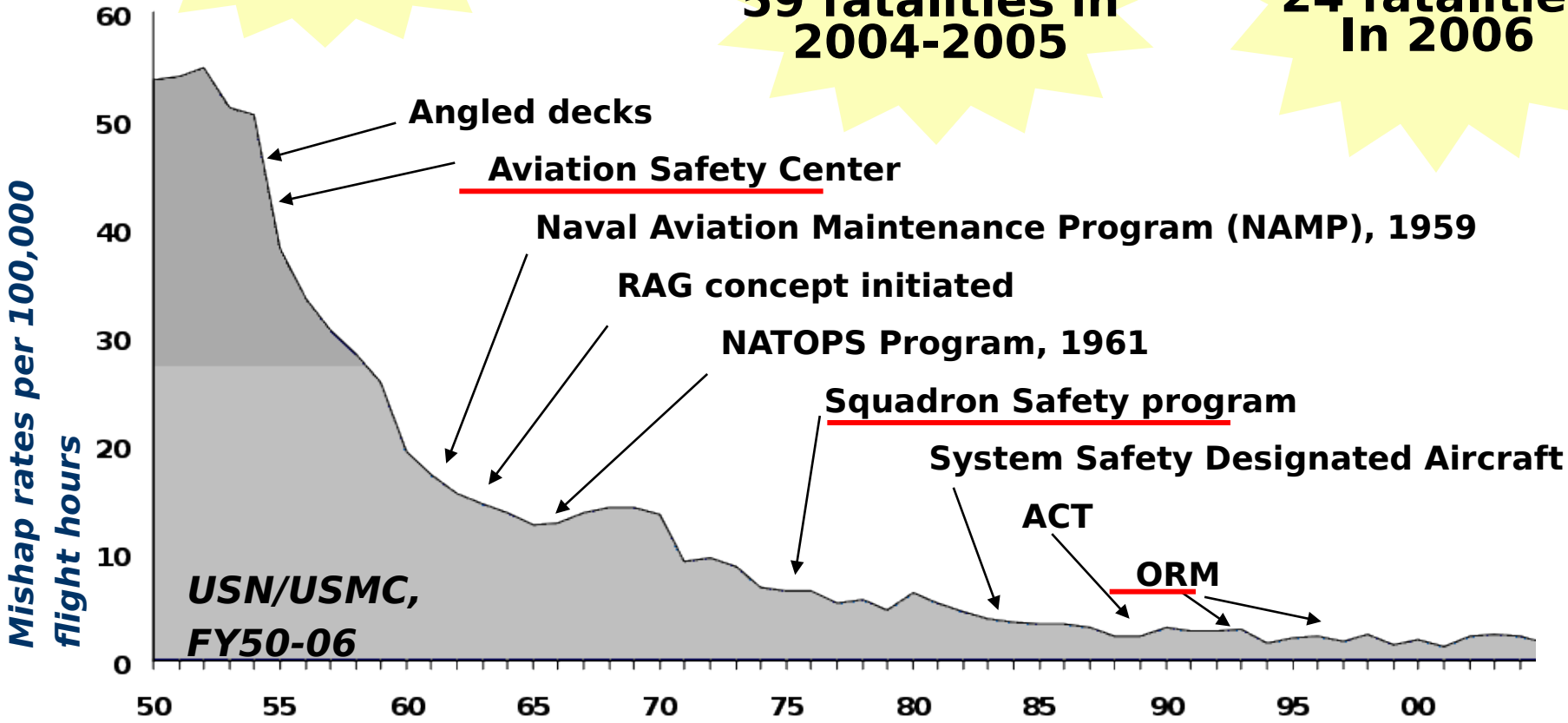
… We have no greater responsibility than to **take care of those who volunteer** to serve."

Aviation Safety Historical Perspective

776 aircraft destroyed in 1954

45 aircraft destroyed and 59 fatalities in 2004-2005

17 aircraft destroyed and 24 fatalities In 2006



Magnitude of Accidents

In FY07, Navy and Marine Corps Operational Mishaps Resulted In:

NAVY

- **1 Navy death every 77 hours (3.2 days)**
- **1 POV death every 112 hours (4.7days)**
- **1 Aviation death every 36 days**
- **1 aircraft destroyed every 45 days**
- **$940K a day in aviation losses**

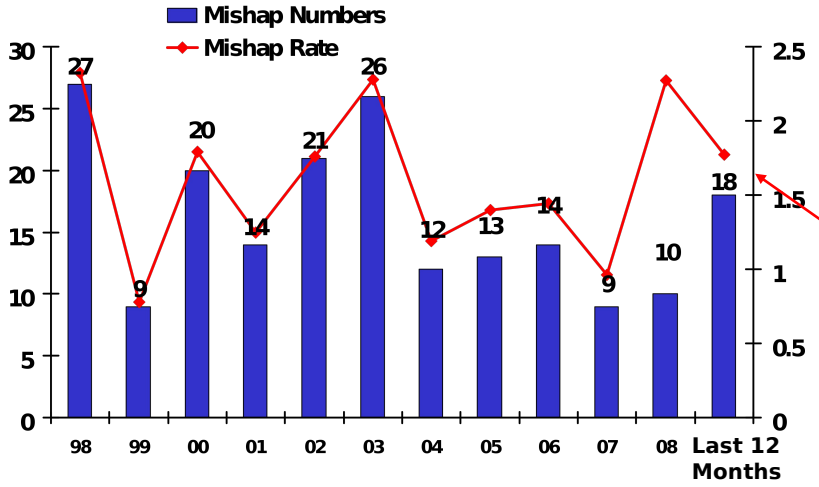
MARINE CORPS

- **1 Marine death every 69 hours (2.9 days)**
- **1 POV death every 132 hours (5.5 days)**
- **1 Aviation death every 33 days**
- **1 Aircraft destroyed every 45 days**
- **$463K a day in aviation losses**

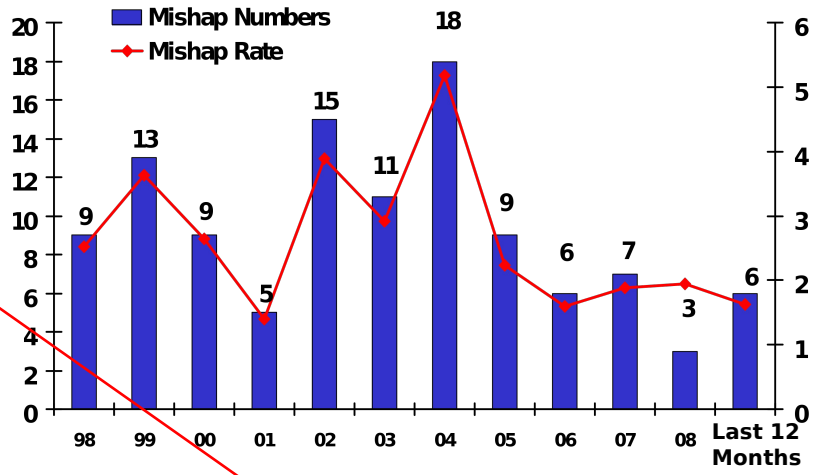
Naval Aviation Class A FM

Last 12 Months

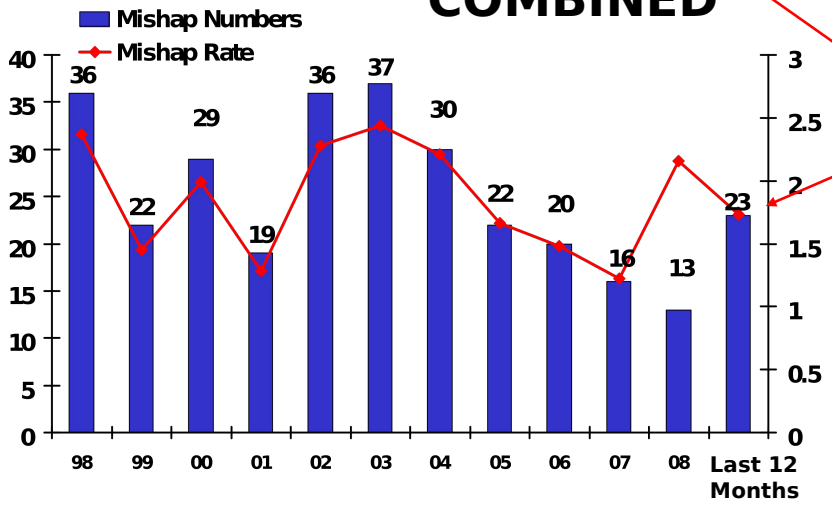
NAVY



MARINE CORPS



COMBINED

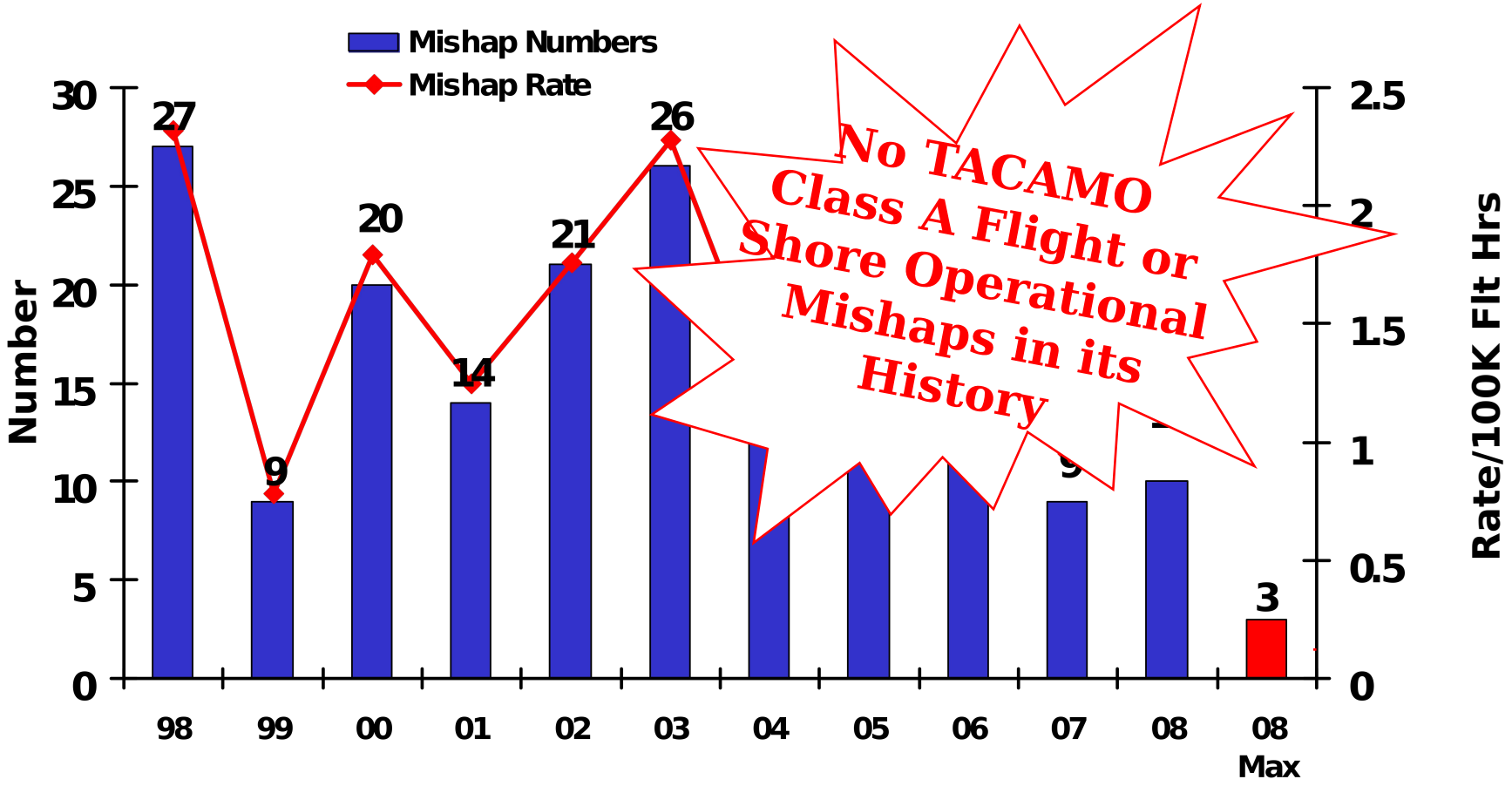


Rolling Average

Thru 9 Apr 08

CLASS A FLIGHT MISHAPS

Last 10 FY - USN



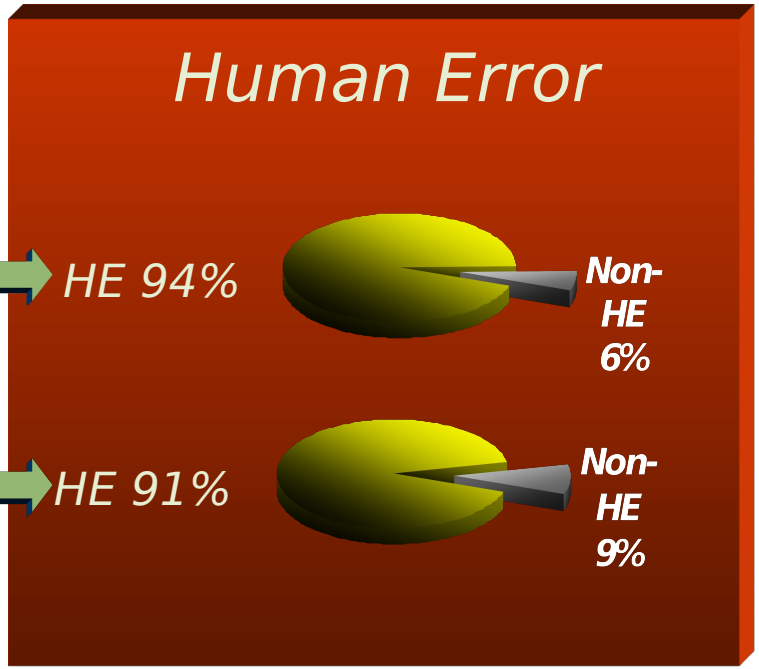
0 Class A Flight Mishap during this reporting period 05 Apr - 11 Apr

	09 Apr 08	09 Apr 07
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	**10 / 2.10**	**1/ 0.22**
FY07 MISHAPS/MISHAP RATE:		**9 / 0.95**
10 YEAR AVERAGE (FY98-07) MISHAPS/MISHAP RATE:		**16.5 / 1.54**

"Causal Factor: Human Error"

USN/USMC, FY03-07

No. of Class A Mishaps		
USN Aviation	81 of 86	HE 94%
USMC Aviation	52 of 57	HE 91%



N1
100
80
60
40
20
0
1 2 3 4
Not AMP Representative
Throttle Angle
MAX
IDLE REV
MAX REV
Feet Below PAPI G/S
474.43
Distance to go
6.197 NM
Gear Down
AOA
VVI
UP
DOWN
A/S
RADALT
FLAPS
PERCENT EXTENDED
DOWN

"Causal Factor: Human Error"

TRENDS

Mishap Investigations

- Human error (aircrew):
  Leading causal factors
  - Skill-based errors
  - Decision errors

  Leading preconditions for errors
  - CRM failures
  - Adverse mental states
- Inexperience
- Training issues

TAKEAWAYS

- Adherence to basic rules, regulations and NATOPS procedures
- Proper pre- flight planning
- Training
- Proficiency
- Institutionalize ORM & CRM
- Enforce standards
- Increase checks and balances

SOURCE; FY07-08 SIR's

Red vs. Blue Threat

(FY 91- present)

- **RED THREAT: Aircraft Destroyed**

  18 Aircraft

  - Ma
  -

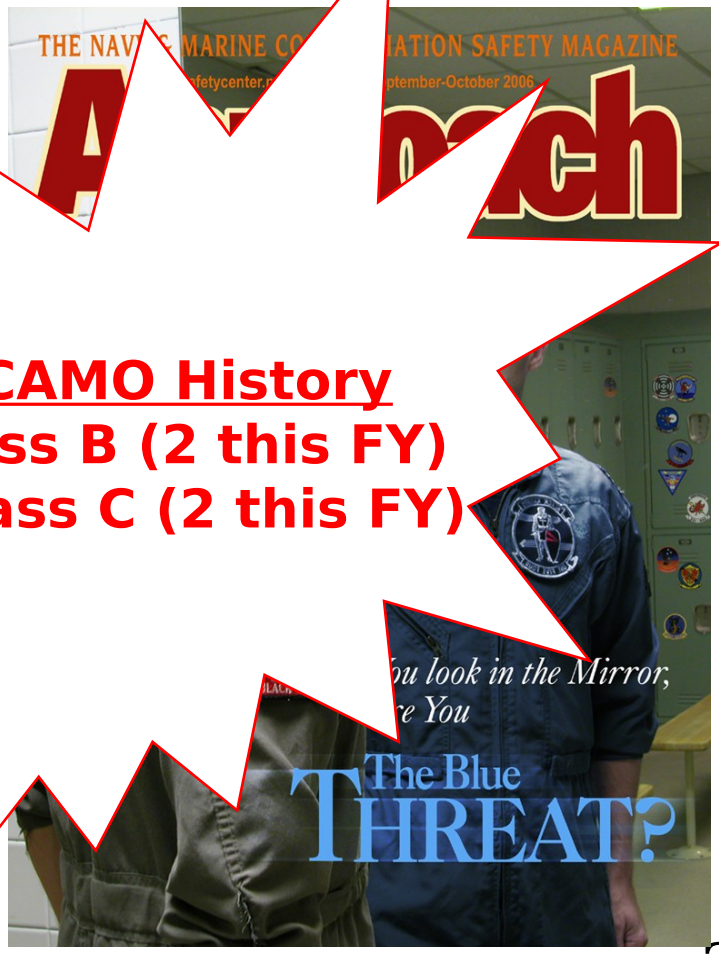
  vs

- **BLUE THREAT:**

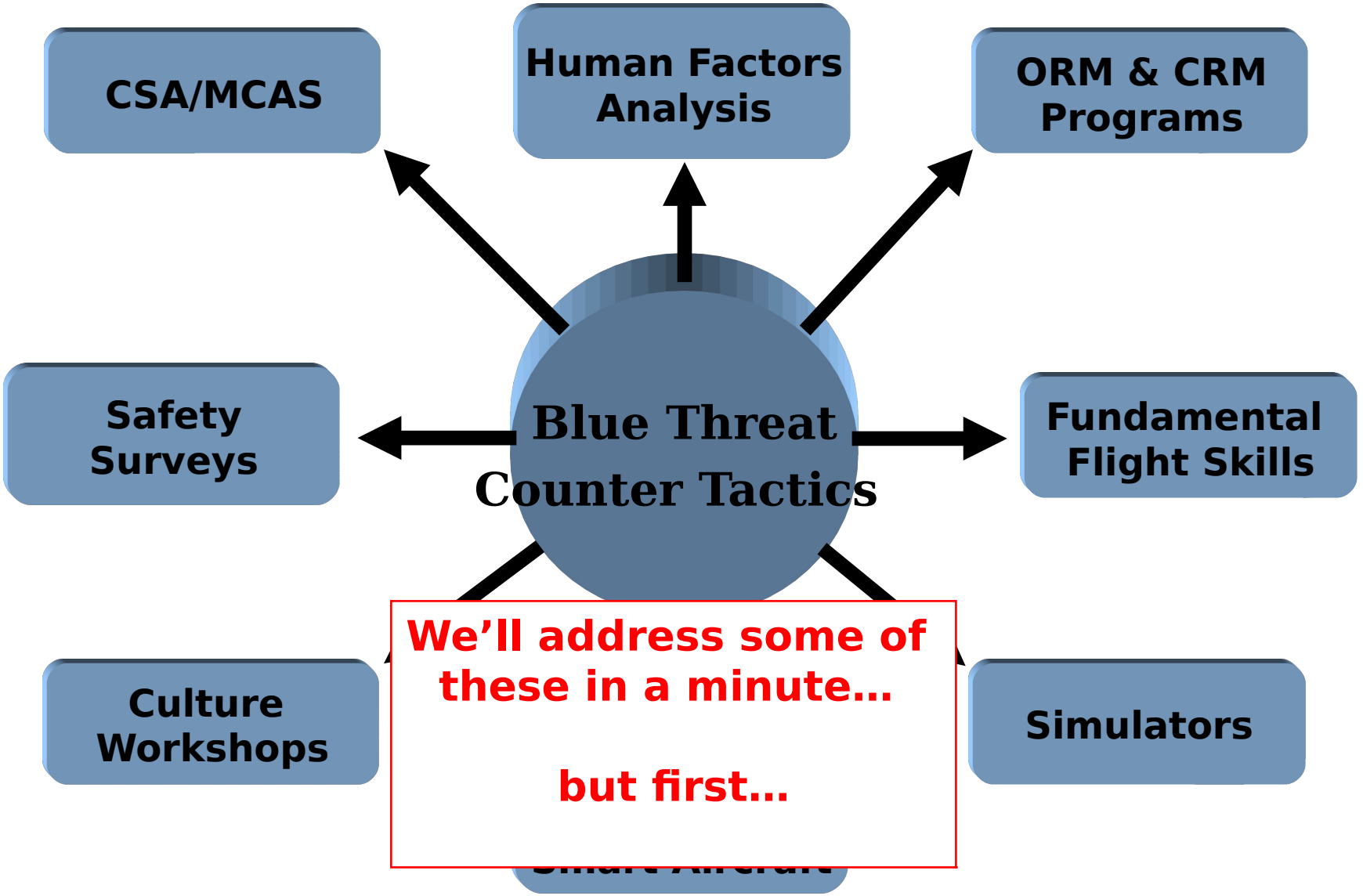
  542 Aircraft

What about Class B And Class C Mishaps?

TACAMO History
4 Class B (2 this FY)
25 Class C (2 this FY)

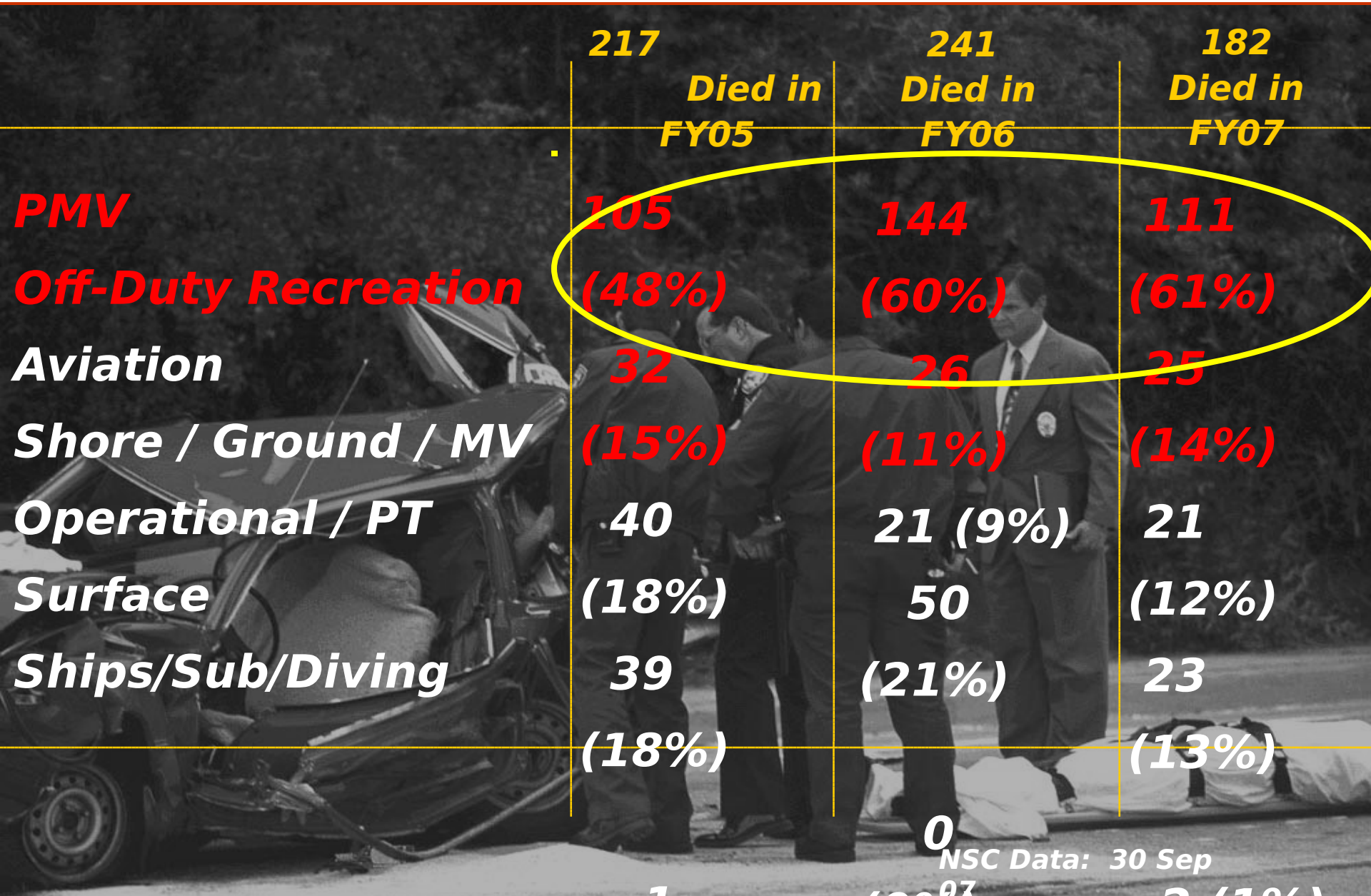


Blue Threat Mitigation Strategies



What is the top killer of our sailors?

How Did Our Sailors and Marines Die?



	217 Died in FY05	241 Died in FY06	182 Died in FY07
PMV	105 (48%)	144 (60%)	111 (61%)
Off-Duty Recreation			
Aviation	32 (15%)	26 (11%)	25 (14%)
Shore / Ground / MV			
Operational / PT	40 (18%)	21 (9%)	21 (12%)
Surface		50 (21%)	
Ships/Sub/Diving	39 (18%)		23 (13%)
		0	

NSC Data: 30 Sep 07

Why Everyone Should Wear A Seatbelt

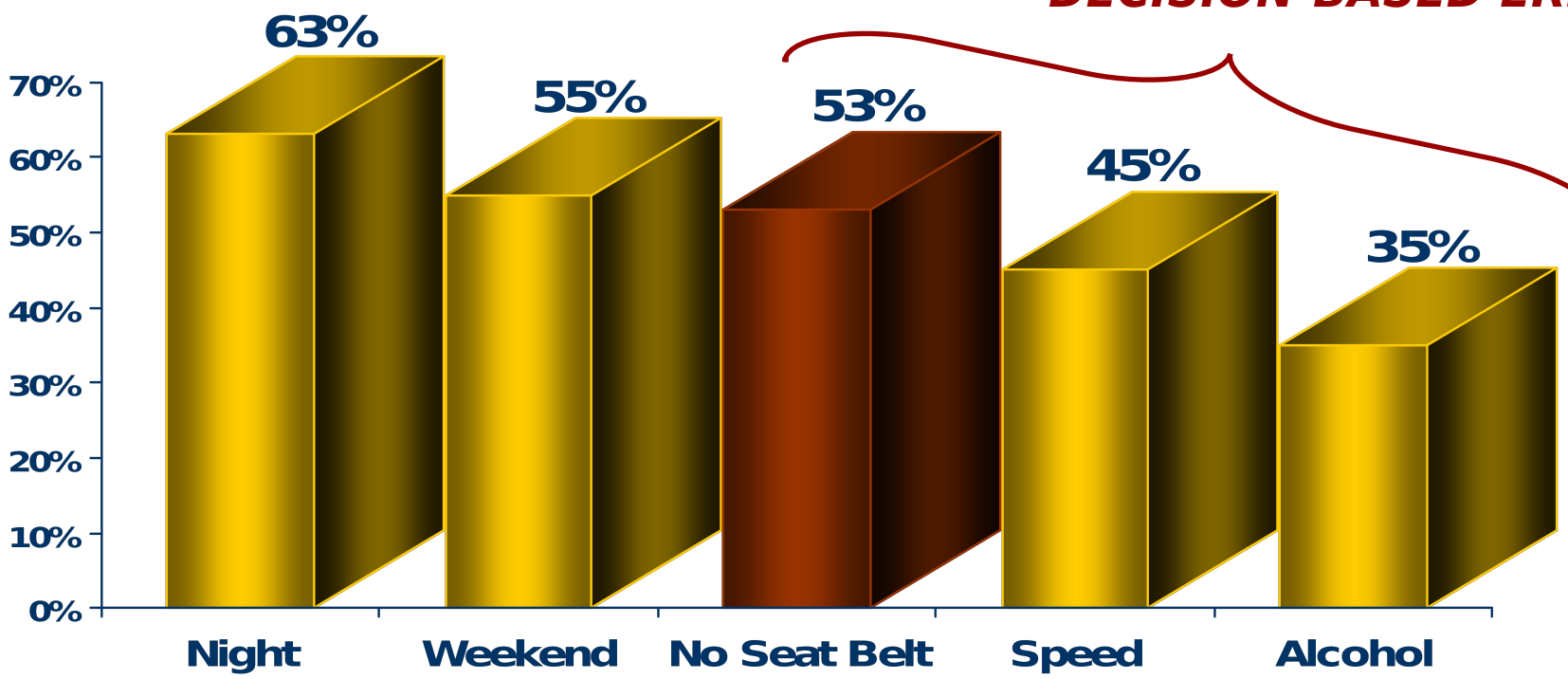
Factors In Traffic Deaths

(USN/USMC, FY02-06)

Fatigue is considered a major factor in traffic deaths, but is under-reported throughout the fleet.

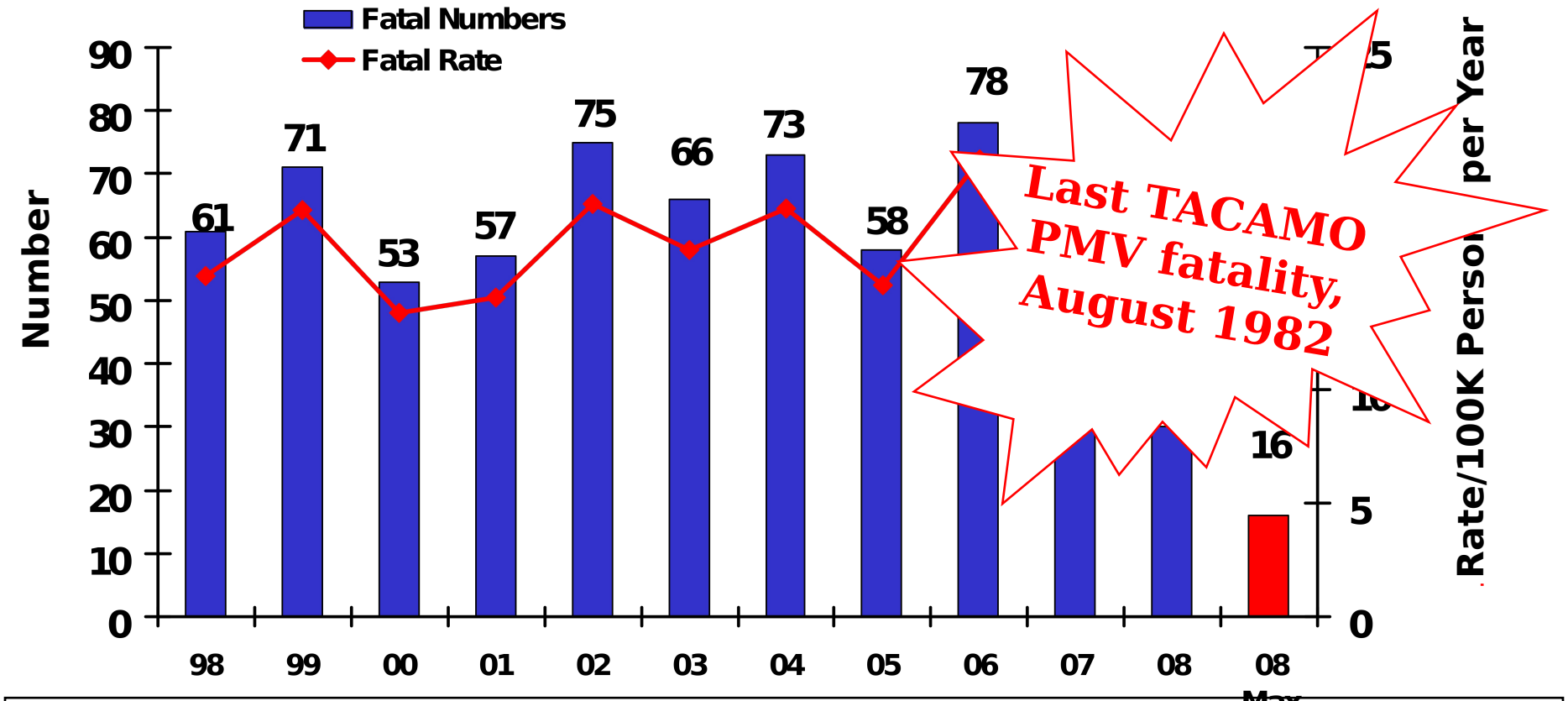
FY02-06 Deaths: 627 (USN –350) / (USMC – 277)
FY02: 140 (USN – 75) / (USMC – 65)
FY03: 119 (USN – 66) / (USMC – 53)
FY04: 119 (USN – 73) / (USMC – 46)
FY05: 105 (USN – 58) / (USMC – 47)
FY06: 144 (USN – 78) / (USMC – 66)

DECISION-BASED ERRORS



4-Wheel PMV Fatalities

USN ONLY



0 PMV Fatality during this reporting period 05 Apr - 11 Apr

	07 Apr	08 Apr	09 Apr
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	30 / 15.69	24 / 12.19	
FY07 FATALITIES/FATALITY RATE:		51 / 13.60	
10-YEAR AVERAGE (FY98-07) FATALITIES/FATALITY RATE:		64.3 / 16.06	

Are these Sailors in your Wing!?!

Motorcycle Types

Sport Touring 1100-1800cc
450-650lb, High performance

Super Sport 650-1100cc

290-350lb, High performance

Sport Unclad 650-1100cc

290-350lb, High performance

Dirt Bike 50-650cc

High ground clearance, not road ready

Standard 650-1800cc,

700-1200lb, High power

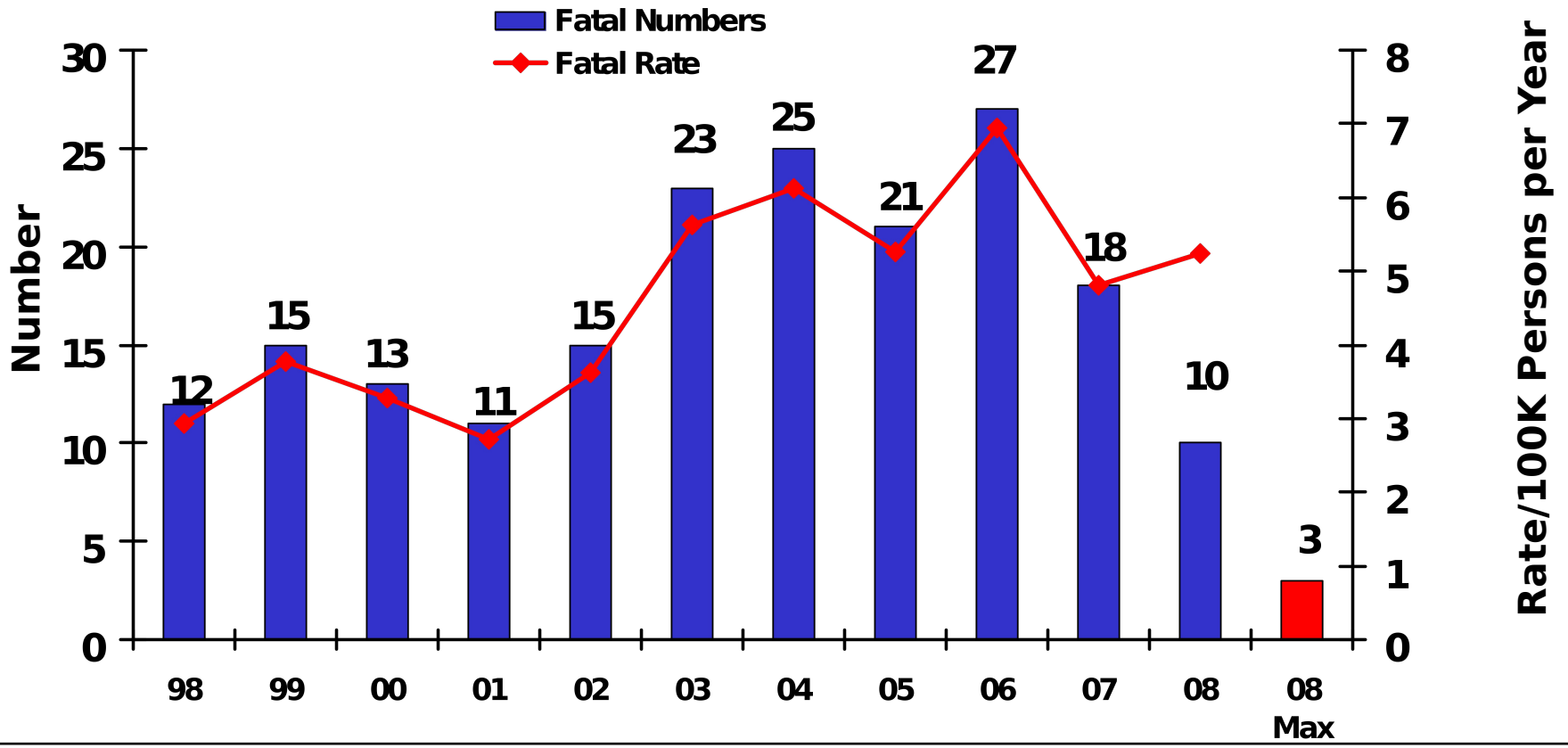
Intro Bike 125-500cc,

200-500lb

Scooters 50-650cc

Motorcycle Fatalities

USN ONLY



0 Motorcycle Fatalities during this reporting period 05 Apr - 11 Apr

	09 Apr 08	09 Apr 07
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	10 / 5.23	10 / 5. 08
FATALITIES/FATALITY RATE:	18 / 4.80	FY07
10-YEAR AVERAGE (FY98-07) FATALITIES/FATALITY RATE:	18.0 / 4.50	

Motorcycle Safety

Fleet Best Practices – PMV

1. Understand who your risk takers are and help them manage risk; engaged mentorship

2. Recognize that becoming a safe driver is part of a young person's maturing process and is not complete until age 25

3. Use the Traffic Safety Toolbox on the Safety Center Website to help reduce mishaps

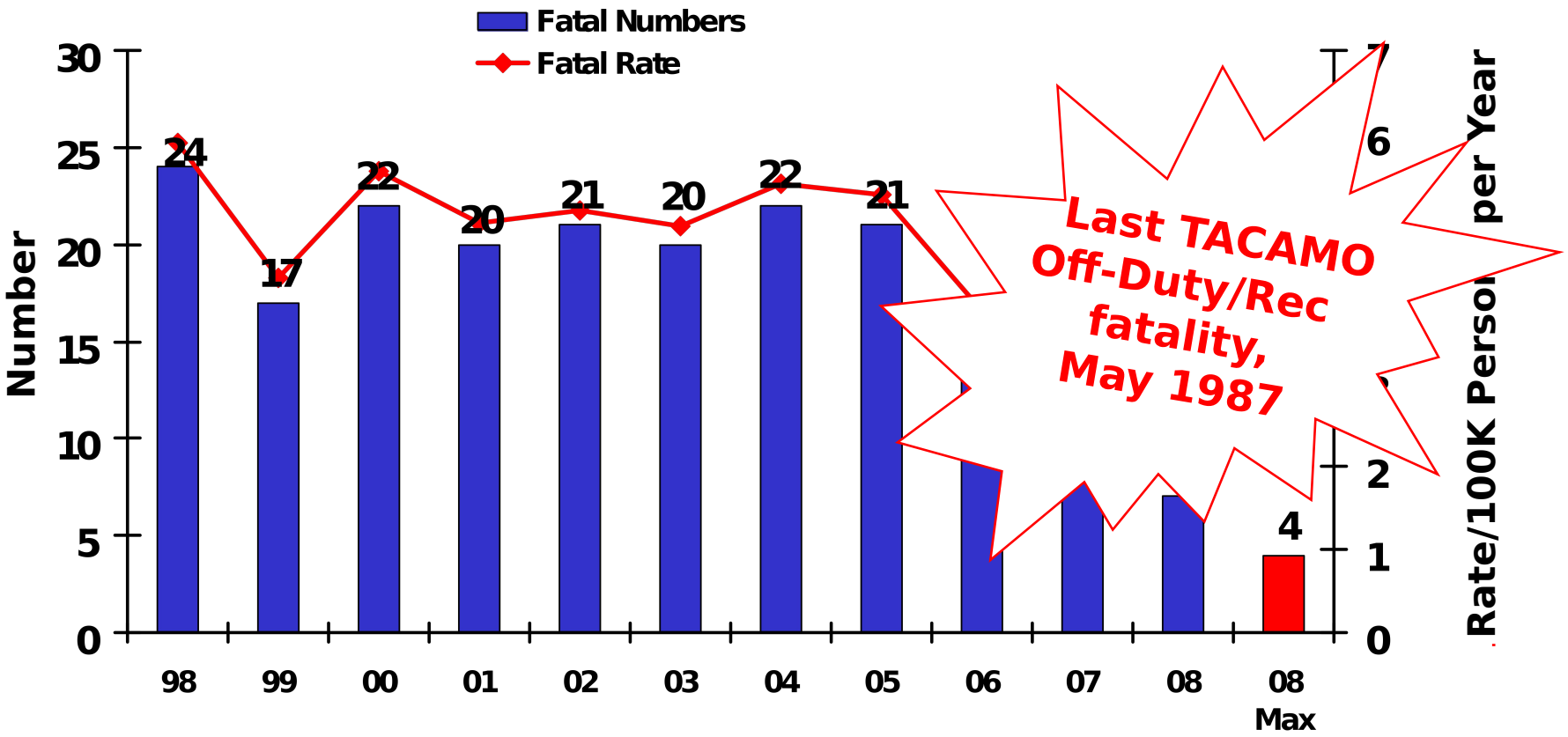
4. Engage in partnerships with local community. (Click It or Ticket, *You Drink, You Drive, You Lose*, MADD)

5. Solicit family members to help keep loved ones safe with letters home

How does ORM effect off duty fun?

Off-Duty/Rec Fatalities

USN ONLY



0 Off-duty/Rec Fatalities during this reporting period 05 Apr - 11 Apr

09 Apr 08 | 09 Apr 07

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 7 / 3.66 | 3 / 1.52

FY07 FATALITIES/FATALITY RATE: 10 / 2.67

10-YEAR AVERAGE (FY98-07) FATALITIES/FATALITY RATE: 19.2 / 4.80

Best Fleet Practices – Off-Duty Rec

1. Ensure all supervisors are engaged in Risk Management and Recreation, Athletics and Home Safety programs.

2. RAHS Program Managers – Ensure command personnel attend seasonal hazard awareness training.

3. Employ the risk management process during all on and off-duty activities.

4. Use Individual Off-Duty Risk Assessment Form to assess behavior factors and indicators related to off-duty recreation mishaps.

5. Make use of qualification training and skills test provided by MWR prior to using their facilities and

Fatigue

DRIVECAM
FG +0.0 SG +0.0 Time -10.00
Rear View
consumptionjunction.com
WHAT'S YOUR DYSFUNCTION?

Effective Use of Risk Management

ORM: Risk Management Not Risk Avoidance

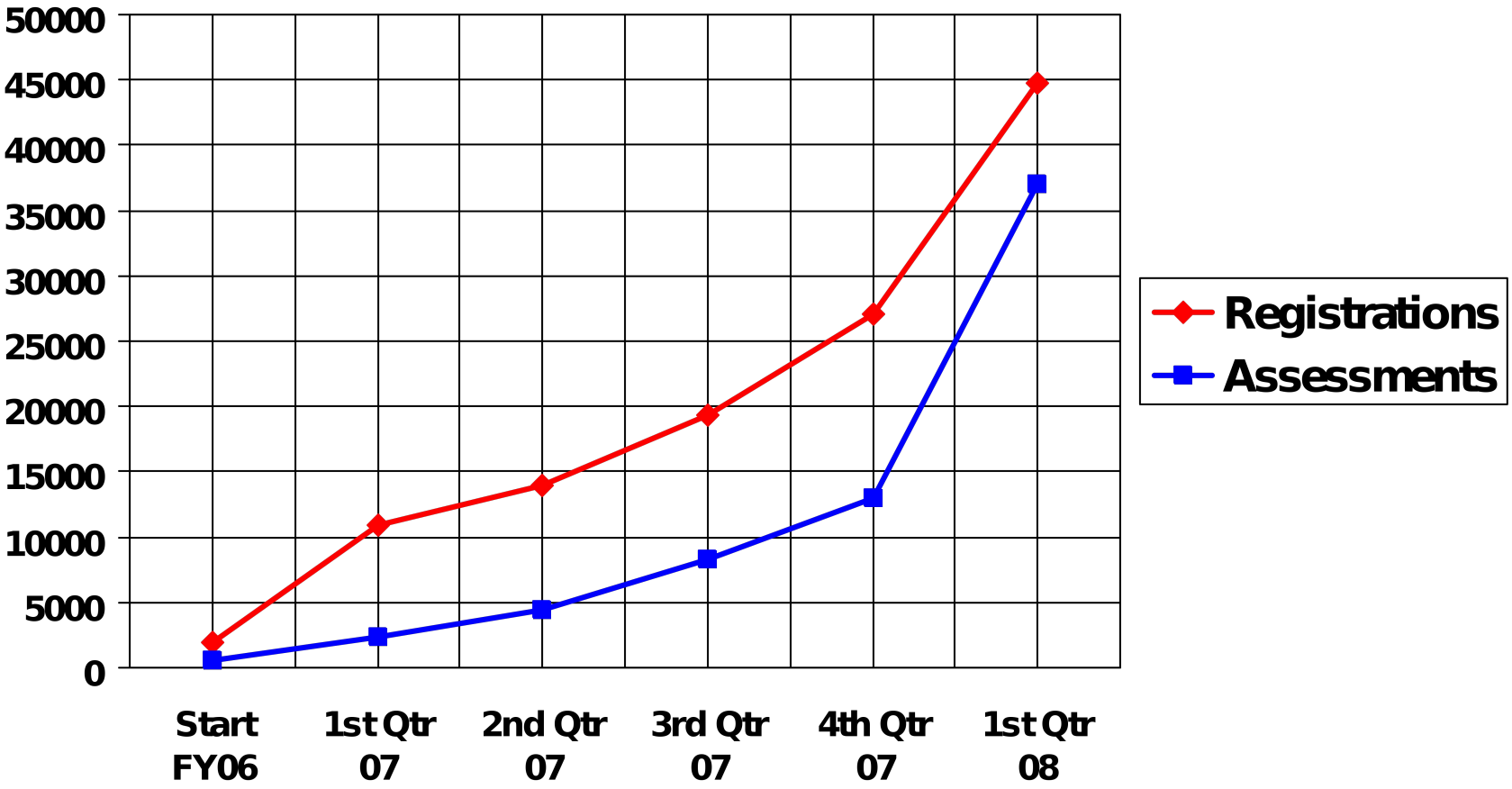
- Easy, common-sense process
- Mind-set
- Way of life – On and Off Duty
- Operating discipline
- Process must be taught
- Must institutionalize ORM – it's not today

YOU CAN'T "ORM" SOMETHING THAT'S STUPID, TO SOMETHING THAT'S SMART!!!

Travel Risk Planning System (TRiPS)

- Delivered to the Naval Safety Center for Fleet use in 2006; based on ASMIS-2 Army Safety Management Information System
- A click away on **http://www.safetycenter.navy.mil**
- Provides ORM trip assessment and actual mishap cases relevant to planned trip. Risk values/models based on NTSB data
- Trip map, times, distances and other products improve ***supervisor interaction;*** CBT course content designed to help change behavior

Travel Risk Planning System



TRiPS usage increasing

65% increase in registrations

185% increase in assessments

Recommendations to Improve Safety

1. **Naval Safety Center Website - Tools Are There!**
   - Traffic Safety Toolbox
   - Web-Enabled Safety System (WESS) – Online mishap reporting / database
   - Leave and Liberty Risk Assessments
2. **Establish a SOLID Welcome Aboard, Sponsorship/ Mentorship Program.**
   - First impressions are lasting ones
   - On and Off duty activities must be addressed
3. **Identify "High-Risk" personnel within your command.**
   - Engage leadership with subordinate personnel
   - Provide awareness training on the popular high-risk activities participated by your crew and mentor high-risk personnel
   - Identify motorcyclist, confirm required training is complete; add additional training requirements where appropriate

Recommendations to Improve Safety

4. **Be Proactive and Involved.**
   - Schedule a Culture Workshop / Safety Survey
   - Distribute “Safe Ride” taxi cards
   - Conduct safety stand-downs when needed and pre-holiday
   - Require TRiPS and leave chit risk assessments prior to authorizing leave
5. **Maintain high-visibility within command.**
   - Enforce Established Standards– defined command safety policy
   - Treat every mishap the same (PMV/Off-Duty Fatality hurts command as much as an Operational Fatality)
   - Correct safety deficiencies immediately
   - Hold yourself and your personnel ACCOUNTABLE
6. **Expect what you INSPECT.**
   - Verify command policies are understood and followed
   - Demonstrate daily commitment to safety. If it’s visibly important to you it will be to your crew.

HAZREP Culture: Where We Want to Be

- **Establish an open environment for reporting**
  - Fleet Education on DON & NSC Objective
  - Instruction revision √ **OPNAVINST 3750.6R Ch 4 rewrite**
  - Training to encourage fleet support during surveys
  - Potential "Safety Hotline" for anonymous reporting
- **Encourage and reward reporting of hazards, near-misses, and lessons learned** √ **OPNAVINST 1650.28A recognizes HAZREP submissions for Safety "S"**
  - Improve/revise incentives
- **Identify leading indicators, maximize awareness, and prevent similar mishaps in the future**
  - Create measures of effectiveness to grade environment for hazard reporting
  - Database capabilities

TACAMO Safety Reporting

- **35 HAZREPS released to the fleet in FY07**
  - On track this FY

- **Diligent Ground Mishap reporting**
  - LWD Average above the fleet average due to responsible reporting, indicates a conscientious safety establishment that reports vice remaining silent.

What We Do for the Fleet

ON THE ROAD

- Safety surveys
- ORM unit training
- Mishap investigations
- PCO briefings
- Safety Seminar/Safety Symposium
- NAVOSHENVTRACEN Safety & Occupational Health Training

AWARENESS

- Fleet Analysis
- Magazines printed/distributed (473,000 copies)
- Interactive CD's
- Acquisition process in-roads
- Safety advisories
- Customer information requests (3,600+ database queries per month)
- Safety Center web page

What's a Safety Survey?

- One-day assessment provided by the Safety Center
- Survey teams improve your crews awareness in mishap prevention and safety deficiencies
- One-on-One hands on training with your crew.
- Static Appraisal

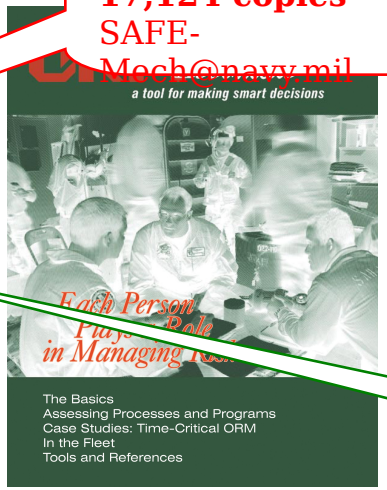
NSC Website:

Your Valuable Resource

www.safetycenter.navy.mil

Our Magazines Reach Every Community
"Tell Your Story"

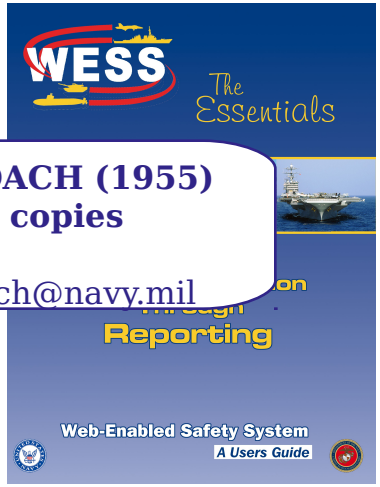
MECH (1961)
17,124 copies
SAFE-Mech@navy.mil



- Focus on time-critical ORM
- Includes basic and advanced concepts
- Real-life scenarios and analysis
- Success stories, lessons learned from fleet units
- Tools, references and links
- On the S...

SEA&SHORE (2004)
30,442 copies
SAFE-SeaShore@navy.mil

APPROACH (1955)
16,183 copies
SAFE-Approach@navy.mil



- Detailed user's guide
- Includes FAQs, guidance for common problems
- Flow chart of complete reporting and QA process
- Covers both 3750 and 5102 topics, incl. aviation, motor vehicles, explosives, diving, OSH and parachute
- Distribution of 3K copies to 1,560 addresses in July 2007

Data Collection / Dissemination

Web Enabled Safety System WESS

- An integrated system to web enable the data collection and information dissemination safety business processes for Navy & Marine Corps.

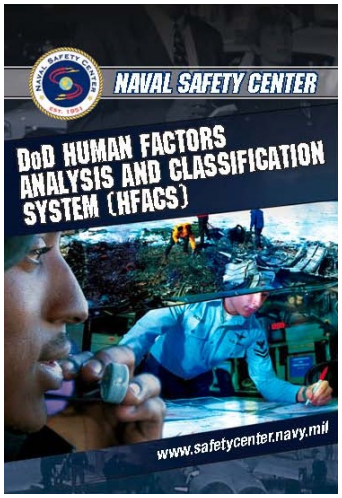
- Allow data transfer with DOD, other Services & other systems with a stake in safety

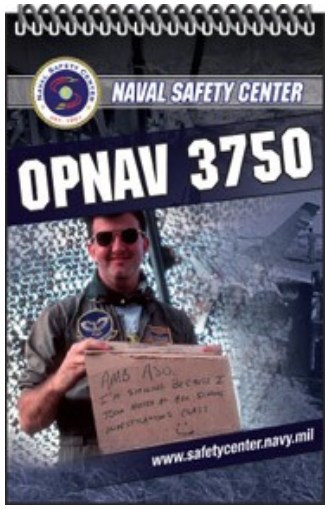
- Allow safety customers direct access, on-line, to safety data to target mishap prevention.

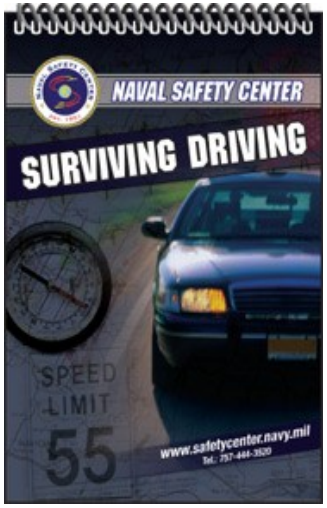
DATA FUSION BENEFITS THE FLEET!

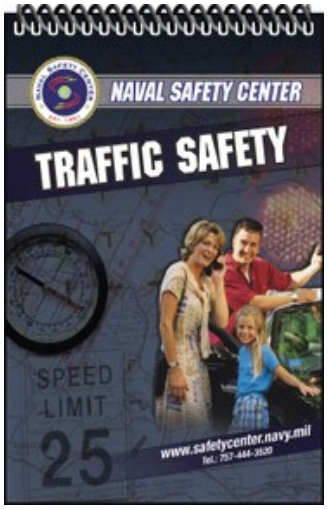
QuickSeries Guides

- Resource-intensive flip books
- Data, guidance, tools, reference material
- Well-received by fleet
- Sent on request
- Motorcycle rider guide in work









Our Goal…

A MISHAP-FREE
NAVY + MARINE CORPS
Team
www.safetycenter.navy.mil

Questions?